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THE
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PUTTING QUESTIONS

— BY —

W. T. YOUNG

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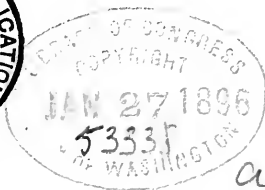
ART OF PUTTING QUESTIONS

BY

✓
W. T. YOUNG

A New Edition, Revised by C. W. Bardeen

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PREFACE TO REVISED EDITION

“The ability to communicate knowledge successfully to others, and particularly to the young, is less rare than that by which the knowledge so acquired by the pupil, is drawn out, and by which he is made *to think*.” Thus the author begins his preface to the original edition, published in 1853, and his little work has been of great value to those fortunate enough to obtain it. For years it has been out of print, and in preparing an American edition I have taken the liberty of making some revisions, seldom altering the author’s language, and never changing his meaning, but making it simpler and typographically more attractive. I think it deserves to stand beside the well-known monographs on the subject of Fitch and Hughes.

C. W. BARDEEN.

SYRACUSE, *Aug.* 26, 1895.

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The Art of Putting Questions

Words, figures, and facts, are the preliminary elements in which the pupil's thoughts are formed and exercised; laws and principles are left to occupy his riper judgment, and to form the basis of opinions and convictions. Since much of the business of the school is necessarily routine and mechanical, since the memory may be burdened, while the intellect remains comparatively dormant, it becomes the part of an education, wisely conducted, to promote the healthy development of all the faculties, and—what is indeed the main object of catechetical examination—to make the understanding operate upon the memory. Besides, to bring under the cognizance of the master the amount of the pupil's attainments and to make the pupil himself

more thoroughly sensible of his deficiencies, a daily and systematic questioning is essential. By this alone faint impressions are made indelible, and crude half-formed ideas deepened into reflection.

Without attempting to form—what is
 Definition sometimes a matter of difficulty—a perfect definition, a question may be considered an interrogative ellipsis; the art of questioning, consisting in giving as much of a proposition as makes the answer returned the complement of that ellipsis. The antecedent of the compound relative *what*, which includes also the simple relative, is that which in the great majority of questions, is supplied by the answer.

When we resolve the question, “What is algebra?” into the affirmative form, it becomes “Algebra is, what?” which, however faulty, is a form of question by no means unfrequent, the compound relative in the question taking the place of the answer.

To take another example, "What were the first manufactures of Southern Europe?"—in the affirmative form, "The first manufactures of Southern Europe were, what?"

When *what* is placed before a noun it becomes demonstrative, and the question turns upon some *particular* of which this noun is a *general* name. In the question, "What circumstance rendered the Norman Conquest of England an advantage?" the answer extended to a complete statement, specifies what circumstance, thus: "The circumstance that rendered the Norman Conquest of England an advantage was, the introduction of the advanced arts and wiser laws."

When, or at what time, *where*, or at what place, *who*, or what person, *how*, or in what manner, *why*, or for what reason, their use in questions being quite obvious, require no illustration. The single particle is to be preferred to the adverbial phrase, the latter being in questions somewhat

pedantic, except in the case of the two adverbs *whence*, from what source or from what place, and *whither*, or to what place, regarding which the reverse holds true.

Which should never be used interrogatively for *what*. *Which* is correctly used in the question, "Which of the Saxon successors of Egbert was most distinguished?" and incorrectly in, "Which occurrence caused the death of Richard the First?"

Which is employed where the answer requires that one thing of several, or several singly, should be named. Generally speaking, *which* requires in the answer an enumeration; *what*, a definition or description. "Which are the ascending signs?" would be answered by repeating the six *seriatim*. "What are the ascending signs?" by defining them to be those lying north of the equator.

As a first requisite in the art of question-
Questioning re-
quires knowl-
edge ing, it must be borne in mind
 that on the one hand a ques-
 tion cannot be properly proposed, nor on
 the other an answer readily returned, where

the knowledge of the subject is not accurate and minute. In his examination of a class, the teacher is not less tested than his pupils. To multiply remarks in continuous instruction from point to point, or from subject to subject, demands neither the exact knowledge nor the vigilant readiness required to frame questions consecutively without any awkward hesitation.

The popularity which some years ago
 Catechisms catechisms and "conversations" obtained as school-books, arose from the neglect of frequent extempore questioning in schools. The absurdity of the scholar's committing to memory the question, with its corresponding answer, was not only tolerated but commended, although such inseparable association of question and answer, in which the latter becomes the adjunct of the former, proposed too in the same unvarying order, defeats the objects of examination. These, in fact, were the formularies of catechising, adhered to by the master with all the pertinacity which convenience and dispatch

suggested, and faithfully followed by the pupil as a mode, not the most troublesome, of throwing off the burden of his tasks, which, acquired to-day, were parrot-like repeated and forgotten on the morrow.

It is no unfavorable symptom of progress in teaching, to observe among school-books the gradual disappearance of ready-made interrogatives. That mode of questioning alone can aid in expanding the intellect, which brings the pupil to a reflective pause ; smatterers are generally ready answerers, and even smartness is not unfrequently the sign of superficiality.

As questions may be materially modified to suit the readiness and capacity of the pupil, they
Answers should require thought should in general be so framed, that no answer can be given that is not the result of some reflection. All questions partake in some measure of the nature of a problem, the idea contained negatively in the interrogative being the data, and the answer the solution. In any ordinary sentence or proposition, consisting of several

particulars or conditions, that which, being made elliptical, the answer supplies, and the particulars of which constitute the question, there is a direct appeal either to the reasoning powers, or to the memory.

In addition to the remarks made in the outset, it may assist in comprehending the nature of a question, to consider the following examples, in which, from three particulars or conditions, any two in the question require the remaining one in the answer.

Examples *A line passing through the centre of a circle, bisects a chord, or is perpendicular to one. From any two of these conditions the third follows.*

Q. If a line passing through the centre of a circle, bisect a chord, what is the position of the line to that chord?

A. Perpendicular.

Q. If a line perpendicular to a chord, pass through the centre, what point of the chord will it intersect?

A. The point of bisection.

Q. If a line bisect a chord, to which it is drawn perpendicular, what point of the circle will it pass through?

A. The centre.

The Tweed, which partly separates England and Scotland, falls into the German Ocean.

Q. What river partly separating England and Scotland falls into the German Ocean ?

A. The Tweed.

Q. What two countries does the Tweed partly separate ?

A. England and Scotland.

Q. Into what ocean does the Tweed fall ?

A. Into the German Ocean.

Those subjects, in which the answer is
Inferential
questions
deduced from the questions
 proposed, should hold a prominent place in the curriculum of school studies, and that mode of questioning should be esteemed the best, which tends to exercise the greatest amount of thought. Among this class of questions, which may be called the inferential, those in simple proportion, worked mentally, in which the ratio of the first and second terms is integral, offer an excellent exercise.

It must, however, be remarked, that there are questions, direct and concise, which, essential to the elucidation of a lesson, can neither be substituted nor omitted. Thus :

If 8 yds. cost 75 cts., what will 32 yds. cost ?

Name the principal sea-port of the country which lies to the south of that country whose chief town is built on the Spree.

If one angle of a triangle be right, and the two remaining angles equal, what is the value of each ?

If 20 grs. make 1 scr. and 3 scr. a drachm, how many grs. in a drachm ?

If 7 is contained 6 times in 42, how many times is the half of 7 contained in the double of 42 ?

If 63 gals. make 1 hhd. and 2 hhds. a pipe, what part of a pipe is a tierce, in which there are 42 gals. ?

Name the town built at the mouth of the largest river which flows into the gulf lying to the south of the country whose chief town is built on the island of Manhattan.

If 9 is contained 8 times in 72, how often is 9 contained in 9 times 72 ?

Here, as indeed in every other point of questioning, much depends on the good sense of the catechist, in observing a proper mean between a simplicity which falls below, and an abstruseness which goes beyond the capacity of the pupil, to avoid an abruptness in the proposal of a question, and an irregularity in the succession of subjects.

In speaking of the necessity of a correct mode of questioning by the teacher catechised master, the importance of his reversing at proper times the position of the examiner and the examined, by inviting his pupils to suggest for answer any questions or doubts upon the subject in hand, should not be overlooked. A distant and magisterial authority may be thus agreeably changed into a familiarity not less restrictive, and a respect not less inviolable. By this means, the master is brought into terms of greater intimacy with his pupils, among whom no small emulation is sometimes excited for the honor of proposing a query to the master, who, in resolving these doubts and difficulties, adds immensely to his importance in the eyes of his pupils. The master, however, should be careful that this privilege may not degenerate into pertness and obtrusiveness with pupils, not, perhaps, remarkably distinguished for refinement of manners or a sense of honor.

A question should never be prefaced by, "Yes" or "no" "Do you know?" or "Can you tell me?" These expressions merely ask the pupil his ability to answer, and can strictly produce only a *yes* or *no*. Although allowable, and sometimes necessary, questions which can receive for answer only a negative or an affirmative, should be proposed but seldom, as the merit of correctness is frequently gained by guessing; and the disgrace attending an inability to answer being less marked where the answer consists of but one or two monosyllables, never acts as an incentive to the negligent. Nor should questions be asked which admit for answer an alternative between two words. Thus:

Q. *Was* London founded by the English?

A. No.

Q. *Are* the ruins of Babylon still visible?

A. Yes.

Q. *Does* a proper fraction multiplied by another proper fraction become less or greater?

A. Less.

Q. *Is* the length of the largest European river

greater or less than the height of the highest European mountain ?

A. Greater.

An effective mode of testing a child's acquirements, consists in framing a question in such a manner that certain things are assumed as facts which have no actual existence, as :

Impossible
questions

Where did Elijah die ?

What is the figure called which is formed by two right lines ?

Name the sea-ports of Bavaria.

How far must parallel lines be produced before they meet ?

To which of the two poles is Quito nearer ?

In the progress of questioning, the gradual advance from what is general to what is specific and minute is both natural and easy, the most ordinary questions being capable of such graduation. Thus (speaking of the siege of Troy):

From general to
particular

What people besieged Troy ?

Why did the Greeks besiege Troy ?

What was the result ?

Who commanded the besiegers ?

Name some of the fugitives.

When a question requires a complicate answer, some one particular
 Simplicity should be selected to form a separate question. Conjunctions should never be employed in crowding several details into one question ; too many points presented at once to the mind of the pupil distract his attention, and render an answer if not impossible at least slow and uncertain.

In the question :

Of what shape is the sun ; how far is it from the earth, and how many miles is it in diameter ?

the figure, distance, and magnitude of the sun should each constitute a distinct question, so as to make a clearer impression on the learner's mind.

Most questions admit of their converse
 Converse questions being proposed, or at least of some cognate particulars forming a second question ; the principal subject thus reproduced and viewed under a different aspect, is rendered more familiar to the mind.

To take as an example, the simplest remark, thus : *Four roods make one acre.*

How many roods make one acre ?

(Conversely) To how many roods is an acre equal ?

What do four roods make ?

Four of what denomination ?

Four roods make how many acres ?

What part of an acre is a rood ?

Is an acre or a rood the greater ?

Name the chief town of Chili.

Of what country is Santiago chief town ?

It is rarely that any questioning less explicit than this is wholly successful in fixing and multiplying ideas. In applying the same mode of analysis in actual oral examination, each word in the question which presents the sentence in a new phase should be emphasized. Thus :

Near Runnymede, in 1215, King John granted Magna Charta.

Where did King John grant Magna Charta ?

When ?

Who granted Magna Charta ?

What did King John grant at Runnymede in 1215 ?

What event took place near Runnymede in 1215 ?

Here the answers to these direct questions, are nothing more than the re-statement of the sentence itself, in which the circumstance, with the particulars of time and place, appears distinct and prominent.

Another method of creating variety and of impressing a fact more Varied form of question deeply on the memory, consists in asking the same question in different words, and of thus, in some instances, altering the form but not the sense of the answer.

Whose son was John the Baptist ?

Zacharias.

Who was the father of John the Baptist ?

Zacharias.

What was the character of Moses ?

He was meek.

What virtue was Moses noted for ?

His meekness.

By the battle of Bosworth, Henry, Earl of Richmond, became Henry VII. of England.

Who was victorious at the battle of Bosworth ?

Who defeated Richard the Third at the battle of Bosworth ?

Who gained the English crown by the battle of Bosworth ?

Who succeeded Richard the Third on his death
and defeat at the battle of Bosworth ?

Name an island in the Mediterranean belonging
to the British ?

What island lies to the south of Sicily ?

Of what is Valetta the chief town ?

It will thus be seen, that in numerous instances, the answer remains the same, while the question itself admits of every variety of construction. Each question in this class of questions should be independent of the others, and should be proposed without any hint or intimation that it refers to the same thing.

Those prepositions which precede *who*,
Prepositions *which*, or *what*, in the ques-
tion, precede it, expressed or
understood, in the answer, and should al-
ways be given with it. Thus :

By what right did John succeed to the crown ?

By the will of his brother Richard.

In which zone is Jamaica ?

In the Torrid Zone.

Of what do the Atlas mountains consist ?

Of terraces rising in succession from the sea.

In delivering a lesson upon any subject, remarks should never be extended to any length without making them the subject of examination. The consciousness of being held responsible for what he hears acts as an excellent restraint on the listlessness of the pupil.

When their number is considerable it is well for the teacher to say,
 Frequent questions “All who can answer may raise their hands.” The teacher can then select a boy he considers among the least likely to answer, and without intimating whether the first answer is right or wrong, can refer to another boy, who, if attentive, will confirm the first answer if right, or correct it if wrong.

Whenever an answer is not in itself incoherent, but applies wholly
 Misconceptions to some other question, the teacher should at once remove the misapprehension. If a boy asked to name a Dutch sea-port says Valencia, he or some other boy who can, should at once be made to point out the last-named sea-port, and

should be reminded that it is in Spain and not in Holland.

The teacher should always endeavor to show a boy who answers wrongly in what respect his answer is incorrect, and should never manifest any impatience at the irrelevancy of an answer; much less should he, as is sometimes done, wholly discourage a boy by exposing him to ridicule. It is not alone the vacuity of ignorance the teacher has to replenish, but numerous misconceptions which he must patiently and laboriously remove if the progress of the pupil is to be at all perceptible.

After the question has been put to several boys and no answer found,
Question
re-stated
 one or two boys among the most negligent should be made to re-state the question asked, and their inability to answer is usually a proof of inattention.

If the entire class has failed to grasp its meaning it should at once be repeated in a more suggestive form.

To take an example, were the question, "What is the cause of the seasons?" pro-

posed without obtaining the answer, it might be approached by some more suggestive form as, "What position of the earth's axis causes the change of seasons?"

The pupil who fails to answer in defining what a thing is, will generally be able to tell what it is not; for example:

What kind of a line is a curve line?

(No answer.)

Is it a straight line?

No, Sir.

Well, then, if it is not a straight line what kind of a line must it be?

Crooked, Sir.

What sort of a line does a bow make when it is strung?

A bent line.

Or an ———.

An arched line.

Whatever the subject be which is selected for examination, the catechist should keep in view the principal points of the subject, and should observe that the pupil understands, both the idea he expresses, and the language in which that idea is conveyed. Generally speaking, the answer received should sug-

Clearness and connection

gest the succeeding question, the examiner at the same time observing that the several parts of the lesson are taken up in succession, together with a collateral questioning explanatory of the answers received.

The pupil should never be allowed to make in the answer any unnecessary repetitions of the words of the question, as in answer to the question, "Who was king of the Jews under the Roman emperors?" to say "It was Herod who was king of the Jews under the Roman emperors."

It is the practice of some teachers while examining a class to make almost every question they propose follow some uncalled-for observation, which, to a class already informed, is certainly a needless expenditure of time and labor, and to one requiring information a most irregular method of imparting it. Nor is this all that is objectionable since many are disposed to consider that remarks so introduced are vainly intended rather to display profundity than to communicate knowledge. No more should be attempted

Needless
information

by the teacher when there are other listeners than his pupils than what forms the daily duties of the school, and nothing less exact or methodical should be practised with his pupils than the eye of authority prompts him to perform. The following may suffice as an illustration of what has been remarked.

The destroying angel passed over the houses of the Israelites ; now how did the destroying angel know how to pass over the houses of the Israelites ?

After the flood the ark rested on the top of a high mountain ; what mountain was it ?

These questions should be :

How did the destroying angel know which were the houses of the Israelites ?

On what mountain did the ark rest ?

In questioning the teacher's manner is

The teacher's
manner

not infrequently communicated to the scholar, the indifference or vigor of the former creating in the latter a corresponding negligence or energy. Ease of manner must not be suffered to languish into supineness, nor vigor to degenerate into haste. Any awkward peculiarity or ungainly mannerism in the

teacher's gesture, tone, or language by arresting the attention of his pupils who have a keen perception of the ridiculous, is sure to divert their minds from their proper business and so to interrupt the work and order of the school.

One remark which will be found of more service than a multiplicity of rules, is, that in almost every case questioning should partake more of the nature of an easy conversation than of a series of formal interrogatives. So much depends upon a discreet, judicious method of questioning, which is after all only a means to an end, that mistakes arise more from an over-weening desire to do great things than from actual inability in the examiner, who, carried away by what has been pointedly called "a sense of performance," gratuitously exposes himself to the remarks of the invidious.

Not long since, in the hearing of the writer, a teacher, animated by the desire of making a good impression, startled his class into a momentary attention, by asking

them to tell him a thing that flew through the air with a tail.

There was silence deep as death,
And the boldest held his breath,
For a time,

till one boy unexpectedly answered "A comet."

"Yes, of course," said the monitor, making a reluctant admission, "that's one thing."

"A cloud," answered another boy, who was stigmatized by the monitor as very foolish.

A pause at length ensued, when the monitor, surprised at finding no answer, announced to his class that it was, "A bird, to be sure."

As the answer is considered with reference to what it indicates of the pupil's acquirements so the question should be proposed with a view solely to the answer, for of the master's questions and the pupil's answers, the former are important only in so far as they contribute to develop the latter.

Keep the answer
in mind

The teacher while himself observing, should also enjoin upon his
Insist upon at-
tempt at answer monitors the necessity of not passing from the boy questioned without obtaining at least the best attempt at an answer. Among the younger classes of the school, there is in general a slowness in thinking, and a diffidence in answering, unknown in classes more advanced. The teacher is consequently induced to pass from those who are unable, to those eager to answer; the dull thus unexercised are suffered to retrograde, and the lively by frequent exercise made more vigorous.

Here, tact and application become eminently essential in rousing the apathy of the indifferent, and at the same time insuring full scope to the energetic.

“*What is meant by to wish?*” asked a teacher, without obtaining an answer. “*What’s to wish?*” she repeated from boy to boy round the whole class without an answer.

The principal, who overheard the question thus ineffectually re-iterated, inquired

of the boy first asked if he ever *wished* for anything. "Yes, sir," said the boy. "Tell me something you ever wished for," continued the master.—"A top, sir," replied the boy.—"Did you get the top just by wishing for it?"—"No, sir."—"Then what do we do when we wish for anything we do not at once get?"—"We long for it," observed another boy, not by any means distinguished for his acuteness, but whose mind had thus been directed closely to the question and hence nearer to the answer.

To draw out that knowledge which is intuitive, to make the child conscious of his own ability to think, and so lead him, by little and little, to self-reliance and reflection, are the first important steps in the work of education.

It must be allowed that a natural capacity for teaching, and a love of the work will do much; but these, aided by art and method, can, with less labor, effect more. The mere natural talent, depending on the mood and the humor of the hour, is, like the magnetic

First steps in
education

There is art in
questioning

needle, subject to many variations, which, to unskilful observers, cause an indication of the cardinal points in sometimes very wrong directions.

When it is considered that from hour to hour amongst the several degrees of attainment and the endless diversity of tastes and dispositions in the class, order has to be maintained and fifty minds kept not only occupied but exercised, and throughout all, a moral influence like an atmosphere kept continually circulating, by which the noxious under-currents of indolence and self-will are neutralized, the necessity becomes obvious of employing right methods of engaging the thoughts. It is possible to make the pupil feel as much pleasure in following the solution of a difficult problem in science as in the attractions of a novel. To exercise is to interest the young mind, and whatever tends to sustain this interest diminishes the necessity for other modes of discipline.

Instruction by lecture or statement, during which the young class remains passive, soon results in promoting sleep in one corner and riot in another. It is not sufficient that the subject be merely *presented* to the mind of the scholar,—this can be done by a text-book; there must be a ready and skilful *adaptation of the subject to the learner* and of the learner to the subject; *it* must be made plain, *he* must be interested. The teacher ought to be not only master of the school and of his subject, but, so to speak, of the will and the intelligence of his pupils, and this he should effect not by constraint, but by sympathy and co-operation.

When the lesson is protracted without sufficient variety, the attention flags, and the continuous tones of the master's voice produce sometimes a mental inanity by no means unpleasing to the uninterested. It is thus that the silence of a class is not always an evidence of its attention. This is easily and effectually remedied by the master's suddenly stopping short and fix-

ing on one boy, asking him in the hearing of the whole to repeat the remarks last made.

1. *Do not confound a frivolous with a simple question*; as “Does flag grow in the ground or come down from the clouds?”

2. *A question should never be loaded with redundant words or high-sounding phraseology*; as, “For what practical purpose of oral communication is accent placed on syllables of words?” which would be shortly and correctly stated, “What is the use of accent?” To take another example, “To what countries does the Rhine roll on its way to the ocean?”

Untrained examiners sometimes ask, “What do *I* mean by so and so?” “What do *you* mean by so and so?” “What am *I* to understand by so and so?” Such interrogatories seem rather to be hurled at the head of the unfortunate pupil than plainly and simply directed to his understanding.

3. *Some expressions meant as questions are mere observations uttered in an interrogative tone.*—In such expressions as the

following the most thoughtless could not miss the necessary *yes* or *no* :

Was not Edward the First very cruel to the Jews ?

Does not the sun revolve on its axis ?

Is not the predicate of a more complex nature than the subject ?

The city of Jerusalem remained for some time after the publishing of the Gospel, did it not ?

4. *Do not mistake obscurity for brevity.*
—A young examiner, in the course of his daily questioning, having caught in the lesson the word *house*, abruptly exclaimed, with the purpose of examining, “Belonging to the house?” “Furniture,” was the innocent and not incorrect reply, instead of, as was expected by the questioner, the adjective “domestic”.

In neglecting this caution in many questions, the expletive *do*—not very elegant in affirmative sentences, but of unquestionable use in the interrogative—is from an idea of simplicity omitted, as: “What means ocular demonstration?” for “What *does* ocular demonstration mean?” Or again: “What promised God to Abra-

ham?" for "What *did* God promise to Abraham?"

When the question relates to a verb, a double expletive is used, as "What *did* the Creator *do* on the seventh day?" This caution is consequently neglected where only one of the auxiliary verbs is employed, as in the question: "What *did* Eve after she had eaten the forbidden fruit?"

The neglect of this caution is also observable where the subject of the question is not placed between the parts of the passive verb, as: "What *is called* a word of five syllables?" for, "What *is* a word of five syllables *called*?" or, "By whom *was founded* the empire of the Greeks?" for, "By whom *was* the empire of the Greeks *founded*?"

5. *Every question should be direct and explicit*, and, without prolixity, should rather suggest the answer than leave the pupil to consider, not what the answer should be, but what the question itself is. Idiomatic expressions and particular re-

marks should never be turned into broad and general interrogatives, as :

What is it said we all do in Adam ?

What did God put man upon ?

“What are the different aspects of the planets, and how many are there?” is an interrogative in which it might be doubted whether the number of the planets or the number of aspects is meant to be answered.

“Who built and destroyed the Temple of Diana at Ephesus?” is a question which would imply that its building and destruction were parts of the same process by the same hand.

A question belonging to this incongruous class, and which is very frequently proposed, is one regarding some person, in which the examiner, viewing this person in some distinct office, makes his question with that single idea, and although several different answers may be allowed to be relevant and proper, none is considered correct except that which corresponds with the one idea in the mind of the examiner.

Such examination as the following is not uncommon :

Who was Joshua ?

The son of Nun.

No, no ; I mean what was Joshua ?

The leader of the Israelites.

Well, yes ; but what was he in relation to Moses ?

He was no relation to Moses, sir.

Well, but in his office what was he ?

(No answer.)

Boys ! was he not the successor to Moses ?

Then follows a loud “ *Yes, sir* ”, and a considerable confusion and clearing of throats.

6. *WHAT should never end a question.*

Where the question consists of several clauses, however, it is not objectionable that *what* be placed in the last clause, provided it is the first word of that clause. The clause preceding *what* in such a case rather defines the conditions of the question and leads nearer to the answer.

Such a question as, “ The first principle of all religion is, what ? ” is both inelegant in construction and ineffective in use. But it is proper to ask, “ When Moses remained

on the mount, *what* did the people propose to do?" and, "When the Israelites kept the manna over the night, till next morning, *what* happened to it?"

For young children, the elliptical method has the advantage of being a combination of question and statement, and forming an available vehicle, not only for eliciting, but also for communicating ideas. At the same time it keeps hold of a scholar whose attention is every moment liable to be dissipated by a passing trifle, and to whom, for the most part, amusement is dearer than instruction. With such, merely to impart information, however useful, without at the same time taking advantage of youthful impulses, allows a healthy mental energy to sink into restlessness and caprice.

It may be taken as a rule, that where direct questioning tends rather to astonish than to interest the young pupil, the elliptical method, which "leads the learner into the knowledge of truth as it were by his own invention," may be profitably used.

Elliptical
questions

The very homely ellipsis of prompting an answer by proposing the first letter or syllable should not be mistaken as a part of the elliptical mode; nor does the repetition of the answer in all except the concluding words leaving these to be filled up by the pupil, constitute a proper ellipsis. That which is left for the pupil to complete should be some important word or leading particular. Thus:

What figure have I put down here?... *A five.*
 What does that single figure really stand for?...
 (No answer.) How many ones does that stand for?
 *For five ones.* Or five.... *units.*

There are some numbers greater than five and some numbers less; name me some of them. Yes, *two or three* are numbers that are.... *less.* Yes, less than five, and.... *quite right, six or twelve or seven* are numbers that are.... *greater than five.* Now I have made the five much.... *larger* than it was before, and the five is now a.... *just a five, sir.* Why, much larger, and only a five still?... *Yes, sir, it's just the same shape, and then it's just the same figure.* If I were to make two drawings of any one of your faces, one drawing very small and another very large, would that make the face itself any larger or smaller?... *No; it would make no difference.* Then the same figure counts the same, whatever its.... *size be.*

Now I know some boys who make figures very badly; they make some fives like sixes and some sevens like nines. Now, in making figures, what should we be very particular about?....*To make them nice.* No doubt we ought to make them nice, and take care to make them the proper....*size.* Something yet we must mind more than the size.*That's it, speak well out, the shape*

I shall write down a nine and a ten. I have got one figure to make a....*nine*, and....*two figures* to make a....*ten.* The two figures that make the ten are... *a one* and... *a nought.* Look well at the ten, and see the side of the nought the one is on.... *It is on the left side.* Exactly so. Some numbers are so great that they take two, and three, and four, and very many figures, so that to find correctly what a number is we must look at the....*shape*, and then at the....*place of each figure* in the row of figures. Every figure for every place it is put to the left counts....*ten times greater.*

I have here put down a nought, and I have put....*a one to the left of the nought*, and the....*one* with the....*nought* counts....*ten.* How many tens?....*One ten*, or ten....*units.* Putting the one to the left of two....*noughts*, it counts one....*hundred*, and so on for every place to the left counting....*ten times greater.*

I wish to put down, as one number, four thousand and six hundred and fifty and five. Now the lowest place of these separate numbers is....*units.* How many units?....*Five.* This five then is to be

made....*the first figure, sir.* On the left or on the right?...*On the right.* What number must I put in the next higher place?...*Six hundred, sir.* Why six hundred?...*Because, sir, six is greater than five.* Now we must look carefully at what we have to do. I said the next higher place to units....*Tens.* Now then, can hundreds be put in the same place with tens?...*No, sir.* Why not?...*Because hundreds are greater.* If a crow, or any other large bird, were put into a robin's nest, would the crow find itself quite snug?...*No, sir.* Why not?...*The crow would be larger than the nest.* So putting hundreds in the place of tens would be just like....*putting a crow in a robin's nest.* What number then must I put in the place of tens?...*The fifty.* Which is how many tens? *Five tens.* So now we can easily find the proper place for the....*four thousand and six hundred.*

The following is an example of the elliptical mode applied to objects.

What object is this?...*A button.* What kind of a button is it?...*A brass button.* Then this button is made of....*brass.* There are some other things made of brass besides buttons?...*Yes, fenders to put before the fire, the handles of doors, musical instruments, some candlesticks, and....snuffers.*

When I press this button between my fingers, I find it very different from pressing a piece of clay or a piece of bread; the button, when I press it, feels very....*hard.* Now, when I press the handle

of the door, I feel it also....*hard*. I know it is hard by....*feeling it*, or by the sense of....*feeling*.

There is something more you can tell me about this brass button you could not tell me by the sense of feeling. I see the button is very....*bright*, and that the color is....*yellow*, by....*seeing it*, or by the sense of....*seeing*.

This penny is made of....*copper*, this box of....*tin*, and this key of....*iron*. Now the copper and tin and iron, like the brass, look very ...*bright*, and *feel* very....*hard*. You have told me before that a substance is....very right: *what we make things of*, and that what anything is made of is called the (one boy) ...*the substance*, or the....(no answer.) You know when the baker makes bread, he makes it by mixing....*flour*, and....*water*, and *salt*, and ...*yeast*. These then are the things the bread is made of, or, in one word the....That is it, let the whole class hear you—*the materials*. Well then, do we get these bright hard substances, or....*materials*, from animals or from plants?....Right; *from neither*, but from....*the earth*. From the top or deep down?....*Deep down*, by....*digging pits*. Pits or... *mines*. And those things which we get out of mines are called from that word *mine*.... *minerals*. Then copper and tin, brass and iron, being got out of mines, are....*minerals*.

But there are different sorts of....*minerals*, and we found that those we were speaking of were both*hard* and....*bright*; and the most of such min-

erals are called....*metals*. Metals then are ...*minerals*, which are....*bright* and *hard*.

A great deal of iron comes from mines in....*Pennsylvania* and *Alabama*; copper from....*Michigan*; tin from....*England*; and brass from.... (Teacher, with assumed surprise) No boy able to name a country noted for mines of brass! Well, I cannot wonder at your not telling me, for brass is not got out of the earth at all, but is made by mixing copper and tin or zinc together. Brass then is not itself dug out of....*mines*, but the two....*substances*—the two....*metals*—which make brass are ...*dug out of mines*.

You will now be able to tell me a little more than when we began. The substance of which this button is made is a....*mineral substance*, and is also a....*metal*, which is made by....*mixing copper and zinc*. You can also tell me by feeling it, that the brass is ...*hard*, and by looking at it, that it is....*bright* and *yellow*. You were able to tell me those three things about brass by the... *sense of feeling*, and the....*sense of seeing*.

The teacher in examining a class in the ordinary reading lesson, should
 In reading lessons first see that the pupil comprehends the sense and general scope of the passage read; and should, in this case, as nearly as possible, let the language of the lesson be that both of the questioner and of

the answerer. He should next examine on the particulars relating to the principal subjects mentioned, and to the more minute facts or other points of the sentence.

Egbert during the remainder of his reign and his successors Ethelwolf, Ethelbald, Ethelbert and Ethelred were engaged in unceasing struggles with these fierce invaders, and at the time when the great Alfred succeeded his brother Ethelred in the year 871, the kingdom was reduced to the brink of ruin.

First — The sense and general scope of the sentence.

What were Egbert and his successors chiefly engaged in ?

What was the condition of the kingdom when Alfred succeeded his brother ?

What kingdom ?

When did Alfred succeed Ethelred ?

Who was the predecessor of Alfred the Great ?

Whom did Alfred succeed ?

What relation was Alfred to Ethelred ?

Second.—Particulars regarding the principal subject.

Who was Egbert ?

What was Egbert ?

How did he become King of England ?

Whom did Egbert fight against ?

Name a remarkable successor of Egbert ?

How was he related to Egbert ?

If the same sentence were used for parsing, he might ask :

What part of speech is Egbert ?

To what verb is it nominative ?

What are those parts of the sentence called which come here between the nominative and the verb ?

How many kinds of clauses ?

Name them.

Parse the word remainder.

What verb is it formed from ?

The root of remain ?

Another noun from the same verb ?

The adjective ?

Parse the word successors.

Is the noun applied to persons or to things ?

What is a successor ?

The verb from which this noun comes ?

Its meaning ?

To those who would for themselves undertake the following exercise, or prescribe it as a task to others, one or two examples are offered. Not only will such an exercise, prosecuted with perseverance, assist considerably in perceiving the sense of a passage for the purpose of examining on it, but it will at the same time form an important exercise in English composition. The passage selected should be copied out,

and questions upon each particular with their answers written below ; the question properly combined with its answer should then be formed into sentences and the passage thus reconstructed should be compared with the original. In this way whatever is extraneous is at once detected, and the leading particulars more readily distinguished.

Three separate short accounts of the siege of Calais have been selected for illustration.

After the battle of Cressy, Edward lay all night on the field and marched next day to Calais, of which he at once formed the siege. It held out a year all but a month ; which so filled Edward with rage that he would not grant terms to the place, in which famine and disease raged, unless six of its chief men would come to his camp with halters round their necks that he might hang them. It chanced that his queen arrived in camp the same day that these good men came out of the town ; for the best men in Calais had claimed the right to die for the rest. She at once prayed the king to grant their lives to her and he did so.

What did Edward do on the night after the battle of Cressy ?

Lay all night on the field.

What did he do next day ?

Marched to Calais and besieged it.

How long did Calais hold out ?

A year all but a month.

What effect had this resistance upon Edward ?

He was filled with rage.

What were the terms of submission which Edward imposed on the inhabitants ?

That six of their chief men should come to his camp with halters round their necks.

What was the state of the city at this time ?

Famine and disease raged in it.

What fortunate circumstance took place on the same day ?

The queen's arrival in the camp.

What did the queen at once do ?

She prayed Edward to spare their lives.

What followed ?

The king granted her request.

The passage reconstructed from the question and answer.

After the battle of Cressy Edward lay all night on the field, and next day besieged Calais, which held out a year all but a month. This resistance so filled Edward with rage that he would not grant terms to the place, unless six of its chief men would come to his camp with halters round their necks, ready to be hanged. At this time, famine and disease raged in Calais. Fortunately the queen of Edward the Third arrived in camp on the same day on which these good men came out of Calais to die for the rest.

She at once prayed Edward to spare their lives, and the king granted her request.

Edward having resolved for the future to secure an easy entrance into France laid siege to Calais, which was defended by John de Vienne, an experienced commander, and supplied with every thing necessary for sustaining a siege. These operations, though slow, were at length successful. It was in vain that the governor made a noble defence, and that he expelled all useless persons from the city, whom Edward generously permitted to pass through his camp and supplied with money for their journey to some place of safety. Edward, however, resolved to reduce Calais by famine, and it was at length taken after a twelve months' siege, the defenders having been reduced to the last extremity. He resolved to punish the obstinacy of the townsmen by the death of the most considerable citizens, who offered themselves with ropes round their necks to satiate his vengeance ; but he spared their lives at the intercession of the queen.

What was Edward's object in laying siege to Calais ?

To secure an easy entrance into France.

Who defended Calais against Edward ?

John de Vienne.

What was his character ?

An experienced commander.

What was the condition of the city when the siege began ?

52 THE ART OF PUTTING QUESTIONS

It was supplied with every thing necessary for sustaining a siege.

Whom did the governor expel from the city ?

All useless persons.

How did Edward treat those who were thus expelled ?

He permitted them to pass through his camp, and supplied them with money for their journey to a place of safety.

How was the city finally reduced ?

By famine.

How long did the siege continue ?

Twelve months.

What cruel resolution did Edward form ?

To punish the obstinacy of the townsmen by the death of the most considerable citizens.

What did some of the citizens do when they heard this ?

They offered themselves with ropes round their necks.

What became of them ?

He spared their lives.

By what means were their lives spared ?

By the intercession of the queen.

The passage reconstructed from the question and answer.

Edward, having for his object to secure an easy entrance into France, laid siege to Calais, which was

defended by John de Vienne, an experienced commander, and which was supplied with every thing necessary for sustaining a siege. The governor expelled from the city all useless persons, whom Edward permitted to pass through his camp, and supplied with money to assist them for their journey to a place of safety. The city was finally reduced by famine, the siege having lasted twelve months. Edward resolved to punish the obstinacy of the townsmen by the death of the most respectable citizens, some of whom, having heard this, offered themselves with ropes round their necks ; their lives, however, were spared by the intercession of the queen.

After the victory of Cressy, Edward besieged Calais, which sustained a siege of eleven months, and yielded in consequence of the defenders having suffered the extremities of famine. They at last offered to submit on their lives being spared, and Edward, full of wrath at their obstinate resistance, agreed only on condition that six of their most considerable citizens should be delivered up to him barefooted and with ropes about their necks ready for immediate execution. This cruel demand struck the inhabitants with terror, in the midst of which Eustace de St. Pierre, one of the principal citizens, came forward and offered himself as one of the victims. His example was instantly followed by five others ; and these six self-devoted men entered Edward's camp in the manner prescribed, and laid the keys of the city at his feet. He ordered them to be

executed ; but his queen Philippa interceded, and by her tears and entreaties procured their pardon. The surrender of Calais took place on the 4th of August, 1347.

When did Edward besiege Calais ?

After the victory of Cressy.

How long did the siege continue ?

Eleven months.

What caused its submission ?

The defenders having suffered the extremities of famine.

What offers of surrender did the inhabitants make ?

To submit on their lives being spared.

What caused Edward to impose severe conditions ?

Their obstinate resistance.

What were those conditions ?

That six of their most considerable citizens should be delivered up to him.

What was the effect of this cruel demand ?

The inhabitants were struck with terror.

Who came forward and offered himself as one of the victims ?

Eustace de St. Pierre.

What was the effect of his example ?

Five others instantly followed.

Where did they go ?

They entered Edward's camp in the manner prescribed.

What did Edward command regarding them ?

He ordered them to be executed.

Who interceded in their behalf ?

His queen, Philippa.

What was the result of her intercession ?

She procured their pardon.

When did the surrender of Calais take place ?

On August 4th, 1347.

The passage re-constructed from the question and answer.

After the victory of Cressy, Edward began the siege of Calais, which lasted eleven months. At last, the defenders having suffered the extremities of famine, offered to surrender on their lives being spared. Their obstinate resistance, however, having provoked the king, caused him to listen to no other conditions than that six of their most considerable citizens should be delivered up to him. While the inhabitants were struck with terror at this cruel demand, Eustace de St. Pierre came forward and offered himself as one of the victims. Five more instantly followed his example. Entering his camp in the manner prescribed, Edward ordered them to be executed, but the queen, interceding in their behalf, procured their pardon.

QUESTIONS CORRECTED

1. Who, and how many were the children of Isaac ?

Name the children of Isaac.

2. Which is the largest, a rood or a square chain?

Is a rood or a square chain the larger?

3. The shadow of what body occasions an eclipse of the moon, and what is its shape?

What body is it whose shadow causes an eclipse of the moon?

What is the shape of the earth's shadow?

4. Who did Herod the Great marry?

Whom did Herod the Great marry?

5. What said the Prophets of the calling of the Gentiles?

What did the Prophets say of the calling of the Gentiles?

6. Who was he that delivered the Jews from the captivity of Babylon?

Who delivered the Jews from the captivity of Babylon?

7. What are the length, breadth, and population of England?

Remark. The extent of a country and its population should form separate questions.

8. How is Europe situated with regard to Asia and Africa, that is—is it to the N., E., S., or W. of them?

Remark. The relative situation of Europe and Asia and that of Africa should be distinct questions ; the specification of the cardinal points of the compass adds to the confusion.

9. What did Nebuchadnezzar do to the three companions of Daniel ?

What did Nebuchadnezzar do to the three companions of Daniel ?

10. What observations can you offer about the position of Great Britain and Ireland ?

Remark. All the observations that can be offered by a pupil regarding the position of Great Britain and Ireland—certainly not all the misconceptions that can be formed from such a question—are, that they are insular, which would be the answer to the direct question : “ What is the position of Great Britain and Ireland ? ”

11. What is the end of Grammar ?

What is the object of grammar ?

12. Does not the word circle mean both the space and the circumference ?

To what two things is the word circle applied ?

13. Did not Saul marry his second daughter Michal to David ?

Whom did Saul give in marriage to David ?

14. How varies the image of an object ?

How does the image of an object vary ?

15. Whether is Elgin or Inverness the most northerly?

Is Elgin or Inverness the more northerly?

16. There are only three countries which produce diamonds; which are they?

What three countries alone produce diamonds?

17. What is the largest river of the most northern nation of Europe?

Remark. There may be the river of a country but not of a nation: or there may be characteristics either of a nation or of a country.

18. What is the deadly enemy of eloquence?

By what is eloquence opposed?

19. Paper is made from what?

What is paper made from?

20. Does America extend more to the North than Europe and Asia, and more to the South than Africa?

Does America or Europe and Asia extend the further north?

21. How do you instance it?

Give an example.

22. Then portions of the circumference are the measures of angles?

What parts of the circumference are the measures of angles?

23. What must be the ground-work on which to raise the superstructure of a good speaker?

What must be observed to make a good speaker ?

24. Then lines drawn from the centre of a circle to the circumference, divide the space round the centre and the circumference of the circle all in the same direction ?

Remark. Example of a question in which the sense can perhaps be best made intelligible by the framer.

25. Can you draw any conclusion from that ?

What conclusion is drawn from that ?

26. How is England bounded, what is its capital, and on what river is the capital seated ?

Remark. The boundaries, the capital, and its situation should be separate questions.

27. Who was Jehoshaphat, and how long and in what manner did he reign ?

Remark. Each particular connected by a conjunction, forms a distinct question. Questions in which the answers are returned in writing, cannot even in such an example as this form an exception.

28. On what design was the tower of Babel built ?

With what design was the Tower of Babel built ?

29. Who did Jesus first appear to after his resurrection ?

To whom did Jesus first appear after his resurrection ?

30. What did Peter after the betrayal of Christ ?

What did Peter do after the betrayal of Christ ?

31. Define what is meant by the unity of a sentence ?

Remark. This interrogatory is redundant, the question without the command being sufficient, "What is meant by the unity of a sentence ?"

32. Give some examples in which participles perform the office of substantives.

Give some examples in which participles are used in place of substantives.

33. What does orthography teach, and what are the general objects of its cognizance ?

Remark. The answer required by the second part of the question is the same as that required by the first, and is therefore redundant, besides being somewhat grandiloquent.

34. What resulted from the study of these several arts ; namely, rhetoric, grammar, and logic ?

What resulted from the study of rhetoric, grammar, and logic ?

35. What modes conduce to the improvement of a language ? or, what practice tends to enrich it ?

Remark. The question which requires a supplementary explanation is not fit to be asked. We do not here object to a question being proposed in language different from the lesson : on the contrary, it offers, at least with advanced classes, a surer test of the degree of attention bestowed on the sense of the passage studied, and in the hands of a judicious teacher, may contribute largely to correct thinking and elegant expression. Were the subject of examination the Revolt of the Ten Tribes, the question might be very properly proposed, "What caused the dismembering of the Hebrew monarchy ?"

36. Which great event took place in the reign of Valentinian ?

What great event took place in the reign of Valentinian ?

37. Of what description is the climate of the West India islands ?

What is the climate of the West India islands ?

38. Do you know where Ismael is?

Where is Ismael?

39. In what position is the earth while performing its annual motion? Is its axis upright?

What is the position of the axis of the earth to the plane of its orbit?

40. Was not George the Third celebrated for the encouragement he gave to the arts of painting and sculpture?

What arts in particular did George the Third encourage?

41. How long did David reign in all?

What was the entire length of David's reign?

42. What other name has the Black Sea got?

What other name has the Black Sea?

43. You told me that Moses was a law-giver to the Jews or people of Israel—pray how came he by those wise and holy laws which he gave them?

How did Moses receive those laws which he gave to the Israelities?

44. How did Joseph carry himself to his brethren in his advancement?

How did Joseph in his advancement behave to his brethren?

45. There is another entrance to the sea of Marmora besides the Hellespont ; what is it ?

What other entrance has the sea of Marmora besides the Hellespont ?

46. Form a question on the particular here italicized, making the other particulars part of the question, and keeping the sense of the sentence complete : "The silk-worm feeds on the leaves of the *mulberry tree*."

On the leaves of what tree does the silk-worm feed ?

47. Form a question on the following sentence, observing the same limitations as in the preceding : "Linseed oil is obtained from the seeds of the *flax plant*."

From the seeds of what plant is linseed oil obtained ?

48. Make the following question more specific by naming some other particular. Where was our Saviour crucified ?

On what mountain was our Saviour crucified ?

49. What does m o n a r c h spell ?

What word does m o n a r c h make ?

50. Form a question on the following, observing the limitations already named.

“Ivory is an *animal* substance.”

What kind of a substance is ivory ?

51. What is a fog made of ?

What does a fog consist of ?

52. Form separate questions on the following sentence, observing the preceding limitations: “*Twice a year* to every place within the tropics the sun’s rays are perpendicular.”

How often are the sun’s rays perpendicular to every place within the tropics ?

53. Form, etc. “*Twice a year to every place within the tropics* the sun’s rays are perpendicular.”

Where are the sun’s rays perpendicular twice a year ?

54. Form, etc. “*Twice a year to every place within the tropics the sun’s rays are perpendicular.*”

What is the direction of the sun’s rays twice a year to every place within the tropics ?

55. Make more specific, the question :
“Who invaded Britain 55 years B. C.”

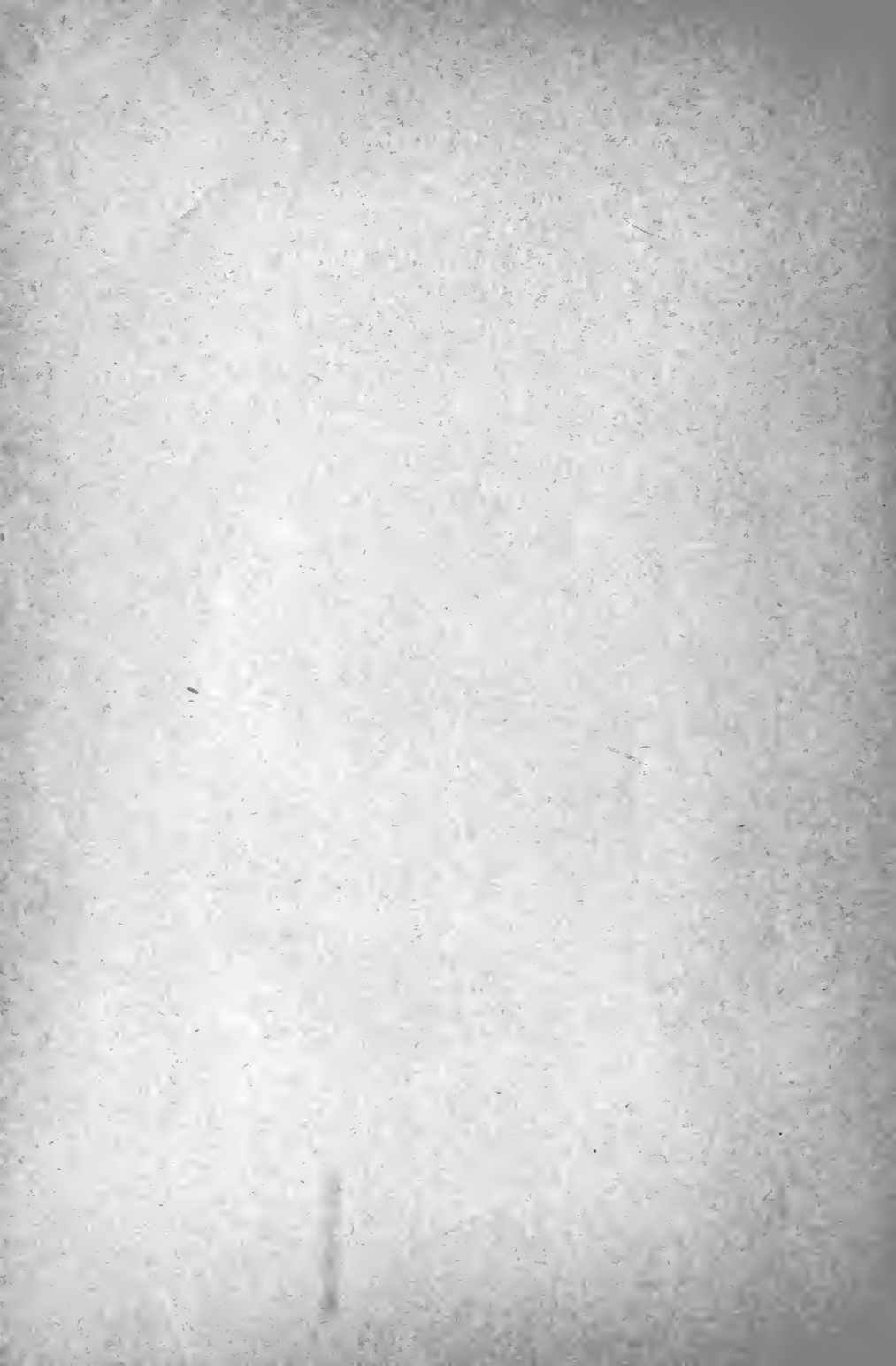
What Roman general invaded Britain 55 years B. C. ?

56. Repeat the question, changing the language of the last clause.

What Roman general invaded Britain upwards of half a century before the Christian Era?

57. Make more specific the question :
“ From whom was Abraham descended ? ”

From which of the sons of Noah was Abraham descended ?



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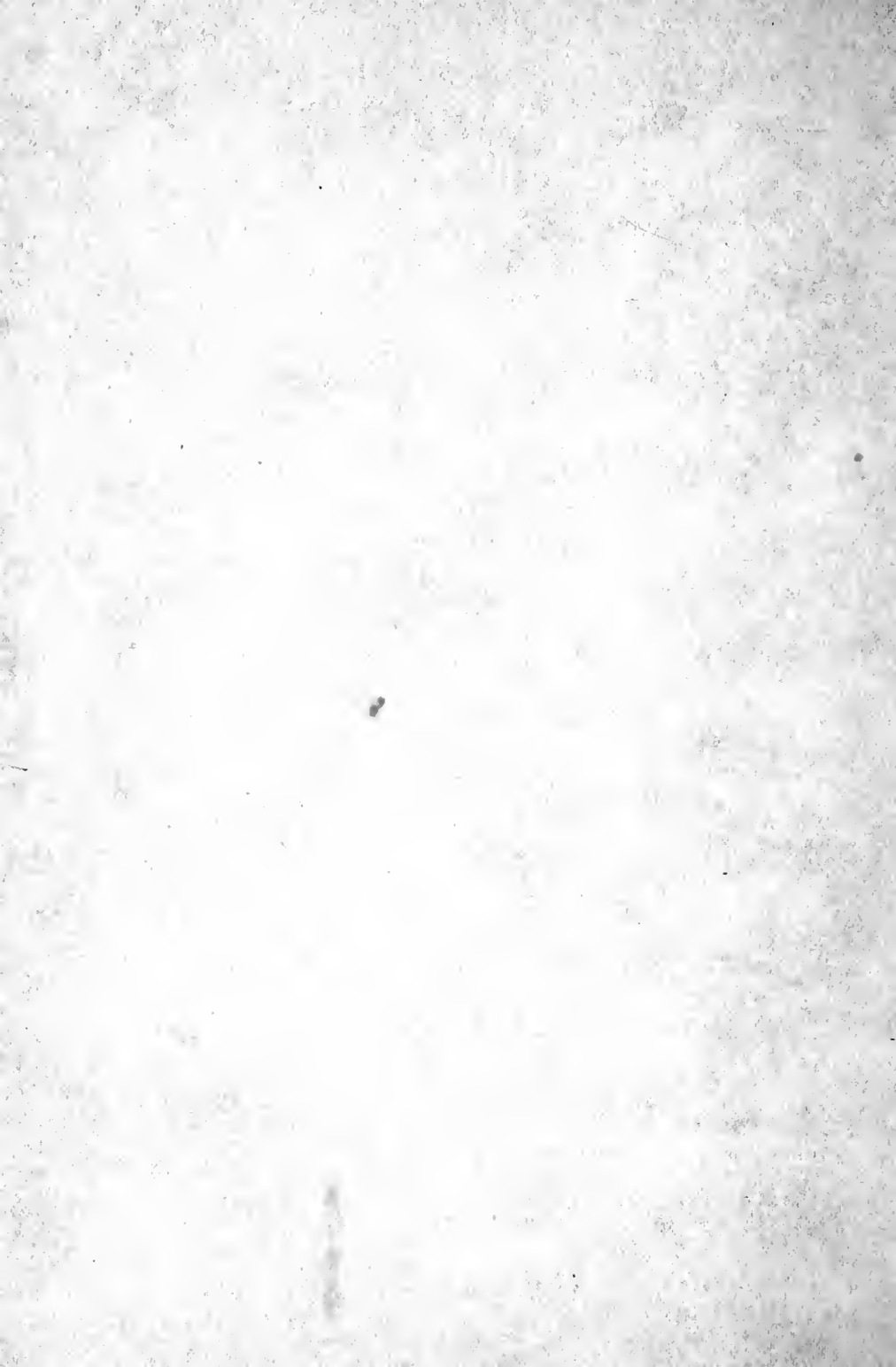
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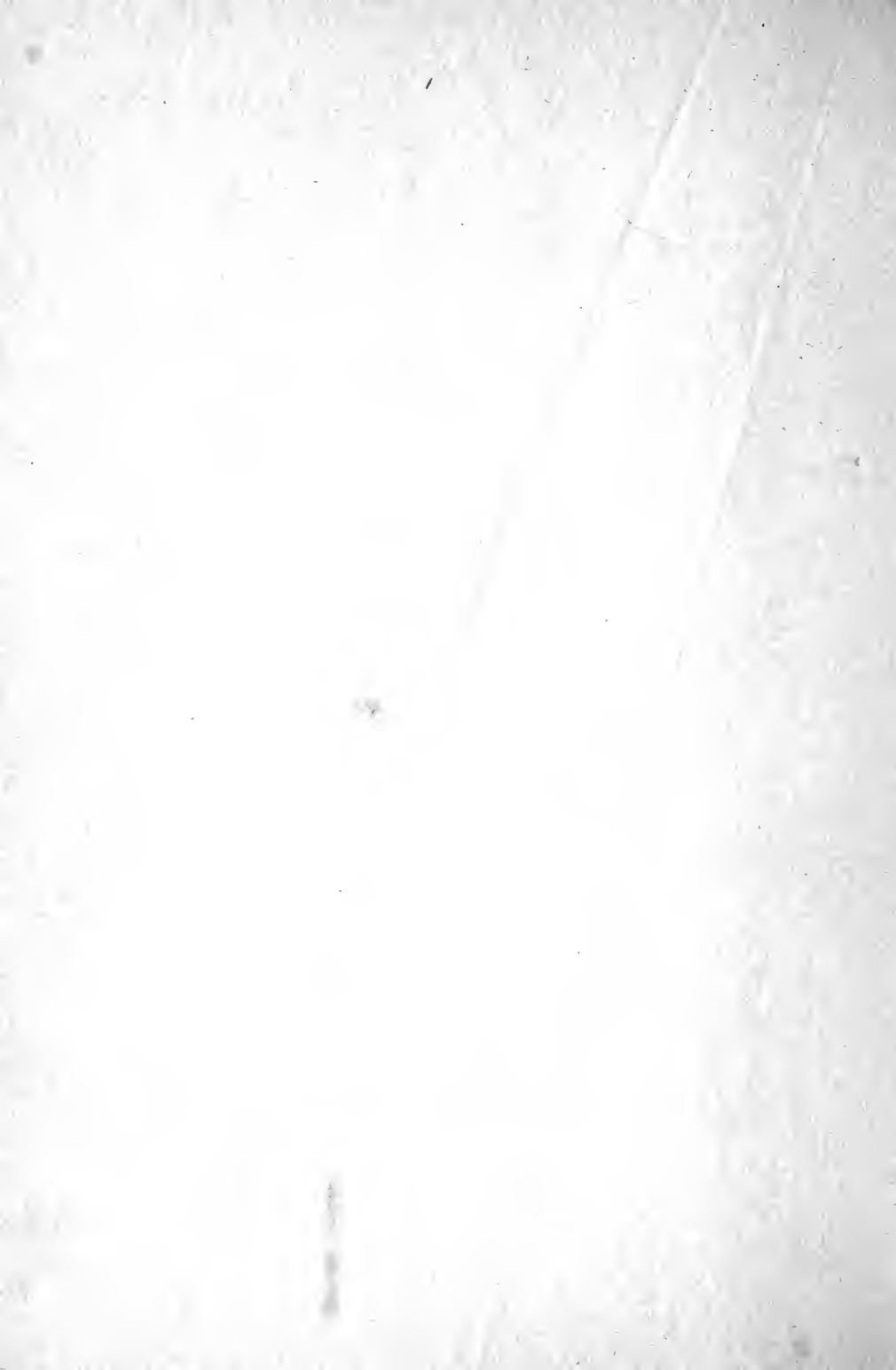
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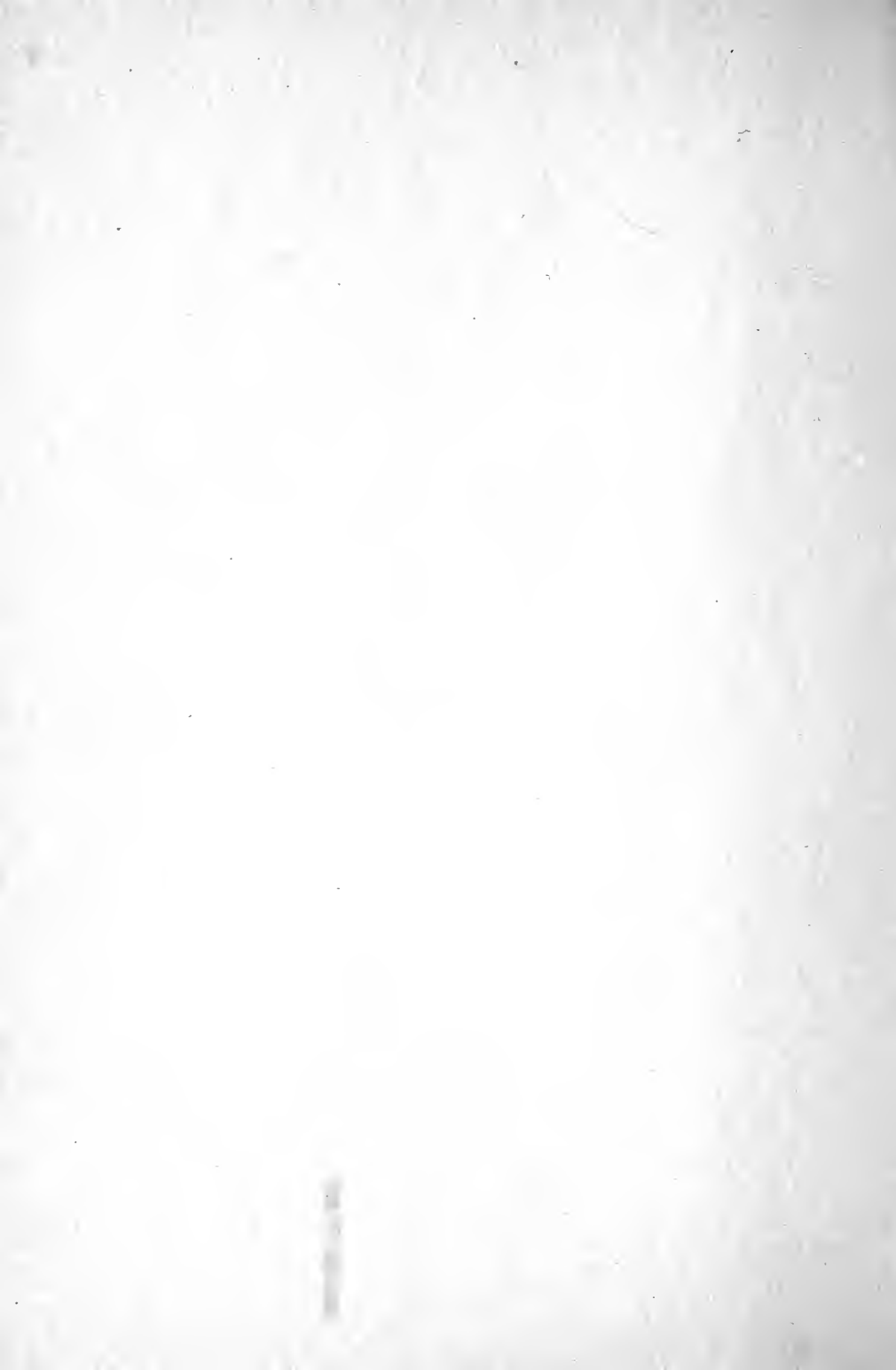
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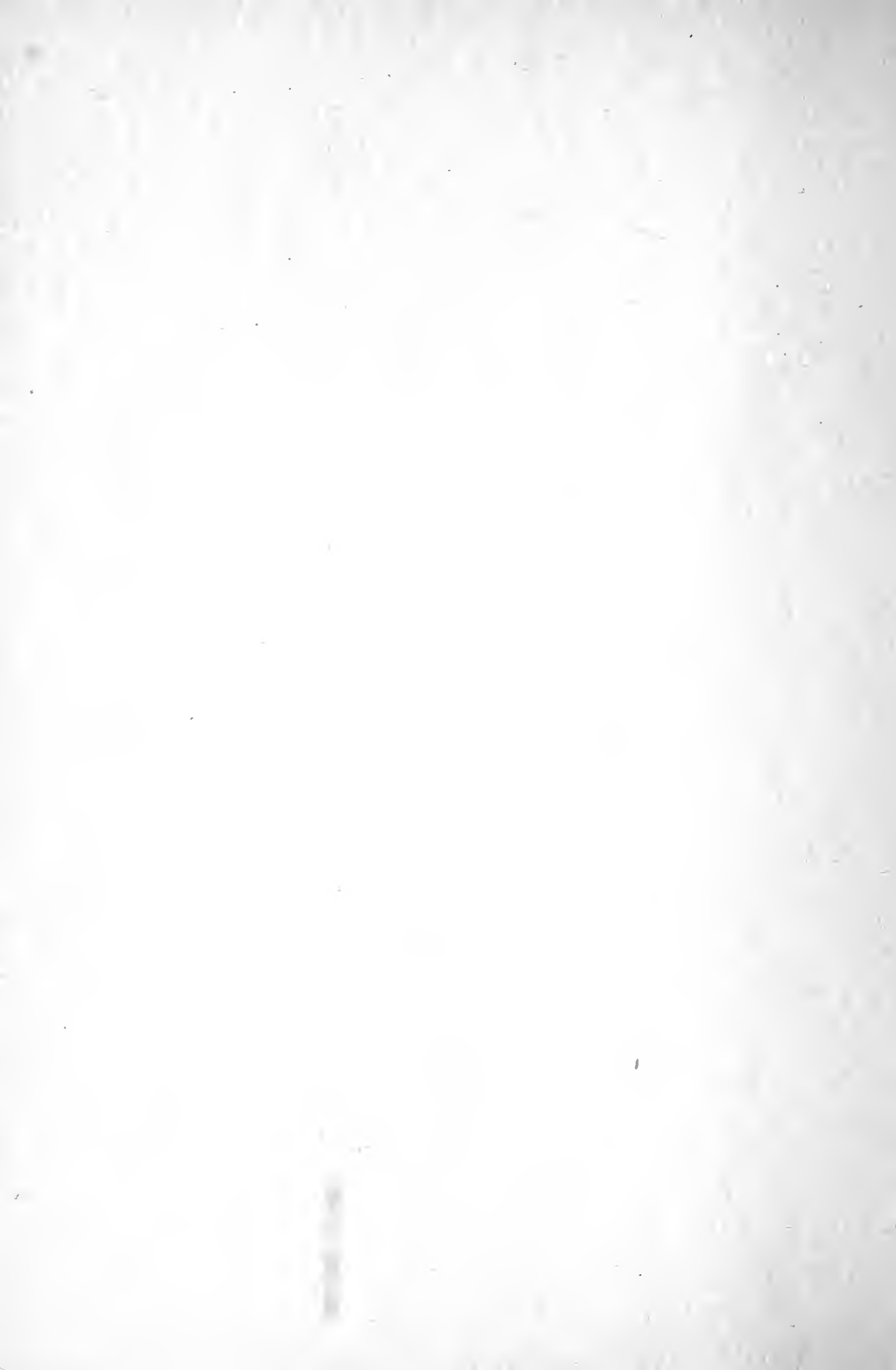
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